

LISTING OF THE CLAIMS

Following is a listing of all claims in the present application, which is provided for the Examiner's convenience:

1-15. (Canceled).

16. (Previously Presented) A method of supplying chemical solutions to a chemical injection part in a semiconductor manufacturing process, comprising:

supplying a plurality of chemical solutions from a corresponding plurality of chemical solution supply sources;

respectively injecting gas into the plurality of chemical solution supply sources, thereby providing a pressure to the plurality of chemical solution supply sources;

recycling the plurality of chemical solutions from the plurality of chemical solution supply sources through a corresponding plurality of recycle lines and preventing coagulation of the plurality of chemical solutions, the plurality of recycle lines being connected to an associated plurality of chemical solution supply sources;

injecting the plurality of chemical solutions from the chemical solution supply sources into a chemical injection part through a plurality of branch lines using the pressure; and

respectively measuring/controlling flow rates of the plurality of chemical solutions supplied to the chemical solution injection part.

17. (Previously Presented) The method of supplying chemical solutions as claimed in claim 16, further comprising mixing the measured/controlled chemical solutions just before supplying the chemical solutions to the chemical solution injection part, wherein the chemical solutions are different.

18. (Previously Presented) The method as claimed in claim 16, wherein respectively measuring/controlling the flow rates comprises:

detecting flow rates of chemical solutions flowing into the feed lines and generating flow rate data signals indicating the detected flow rates of each respective chemical solution;

receiving flow rate data signals indicating the detected flow rates of each respective chemical solution and comparing the flow rate data signals with reference flow rate data signals in order to output control signals for controlling flow rate control valves of each respective chemical solution; and

controlling the flow rate control valves by means of the control signals to control the flow rate of the chemical solutions.

19. (Previously Presented) The method as claimed in claim 18, further comprising a step of displaying the measured flow rates.

20. (Previously Presented) The method as claimed in claim 18, further comprising generating an alarm for warning an operator when any measured flow rate exceeds a permissible error range of a required flow rate.

21. (Previously Presented) A method of supplying a chemical solution to a chemical injection part in a semiconductor manufacturing process, comprising:

- supplying the chemical solution from a chemical solution supply source;
- injecting gas into the chemical solution supply source, thereby providing a pressure to the chemical solution supply source;
- recycling the chemical solution through a recycle line and preventing coagulation of the chemical solution;
- injecting the chemical solution from the chemical solution supply sources into a chemical injection part through a branch line using the pressure; and
- measuring/controlling a flow rate of the chemical solution supplied to the chemical solution injection part.

22. (Previously Presented) The method as claimed in claim 21, wherein measuring/controlling the flow rate comprises:

- detecting a flow rate of the chemical solution flowing into the feed line and generating a flow rate data signal;
- comparing the flow rate data signal with a reference flow rate data signal in order to output a control signal for controlling a flow rate control valve; and
- controlling the flow rate control valves in accordance with the control signal.

23. (Previously Presented) The method as claimed in claim 21, further comprising displaying the measured flow rate.

24. (Previously Presented) The method as claimed in claim 21, further comprising generating an alarm for warning an operator when the measured flow rate exceeds a permissible error range of a required flow rate.

25. (Previously Presented) The method of supplying chemical solution as claimed in claim 17, the mixing the measured/controlled chemical solutions comprises mixing at least two from the group consisting of a reaction reagent, friction particles, and a chemical reaction catalyst.